CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



Mayor Timothy M. Keller

September 29, 2022

Ryan Morrissey, P.E. Burkhardt Engineering 28 North Cherry St. Germantown, OH, 45327

RE: Champion Xpress Car Wash 5307 4th Street NW Revised Grading and Drainage Plan Engineer's Stamp Date: 08/12/22 Hydrology File: F14D036A

Dear Mr. Morrissey:

Based upon the information provided in your submittal received 08/15/2022, the Revised Grading & Drainage Plan is approved for Building Permit, SO-19 Permit, and for action by the DRB on Platting. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PRIOR TO CERTIFICATE OF OCCUPANCY:

- Albuquerque 1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
- ^{NM 87103}
 Please provide the Drainage Covenant with Exhibit A for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit the original copies along with the \$25.00 recording fee check made payable to Bernalillo County to Carrie Compton (<u>cacompton@cabq.gov</u>) on the 4th floor of Plaza de Sol.

www.cabq.gov

PO Box 1293

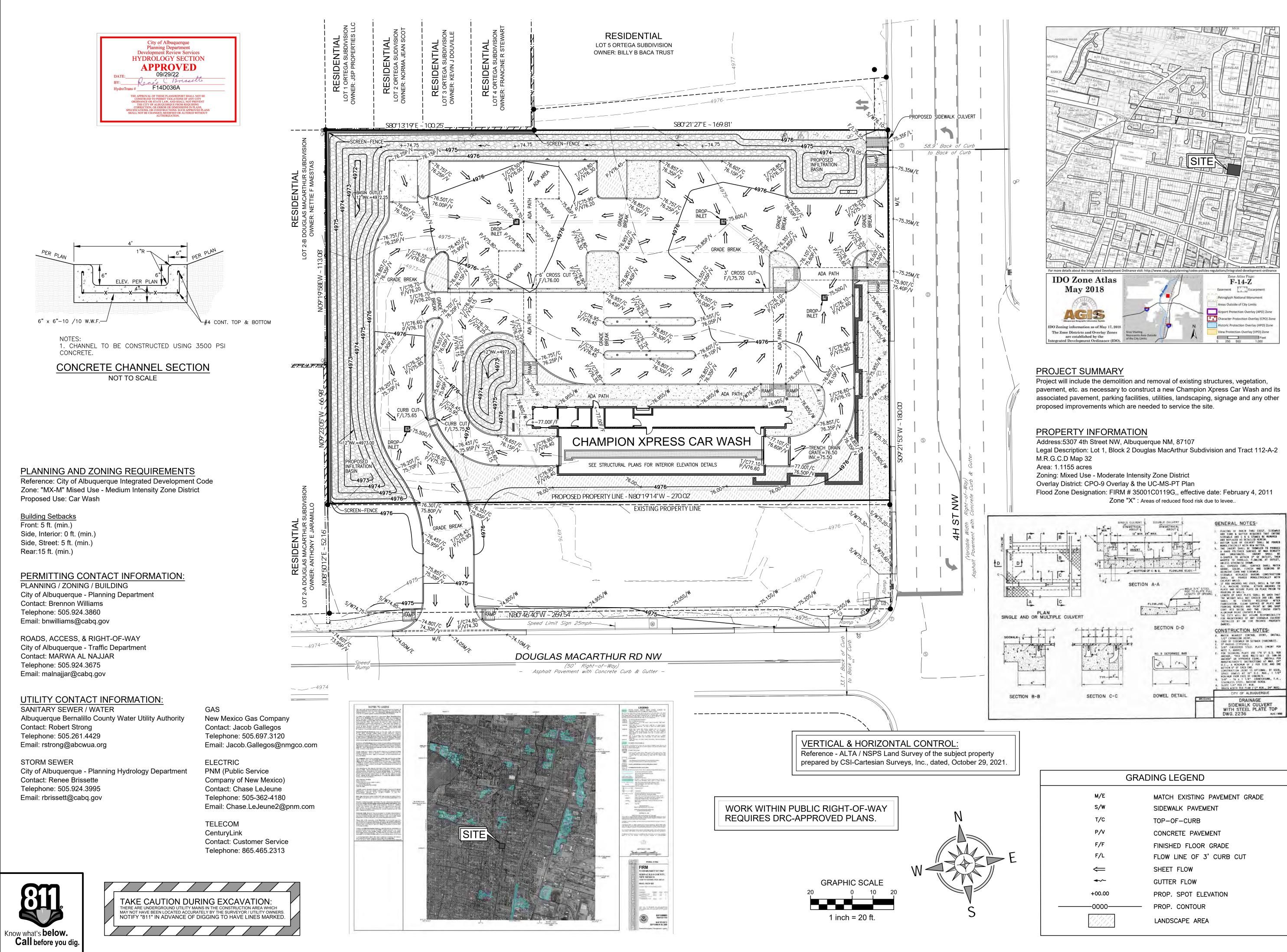
As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

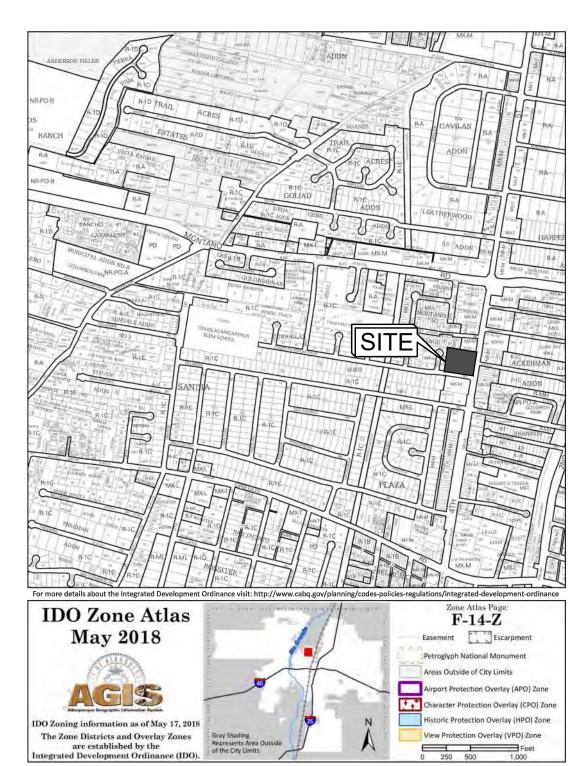
If you have any questions, please contact me at 924-3995 or <u>rbrissette@cabq.gov</u>.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM Senior Engineer, Hydrology Planning Department





	G	RADING LEGEND
	M/E	MATCH EXISTING PAVEMENT GRADE
	S/W	SIDEWALK PAVEMENT
	T/C	TOP-OF-CURB
	P/V	CONCRETE PAVEMENT
、	F/F	FINISHED FLOOR GRADE
E I	F/L	FLOW LINE OF 3' CURB CUT
\overline{I}	\Leftarrow	SHEET FLOW
	~ ~~	GUTTER FLOW
	+00.00	PROP. SPOT ELEVATION
	0000	
		LANDSCAPE AREA



Private Drainage Facilities within City Right-of-Way Notice to Contractor (Special Order 19 ~ "SO-19")

- 1. Build sidewalk culvert per COA STD DWG 2236. Work is
- permitted and inspected by DMD Construction Services Division.
- 2. An excavation permit will be required before beginning any work within City Right-of-Way.
- 3. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
- 4. Prior to any excavation, the contractor must contact New Mexico One Call, dial "811" [of (505) 260-1990] for the location of existing utilities.
- 5. Prior to construction, the contractor shalle xcavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
- 6. Backfill compaction shall be 95%.
- 7. Maintenance of the facility shall be the responsibility of the owner of the property being served.
- 8. Work on arterial streets may be required on a 24-hour basis. 9. For excavation and barricading inspections, contact DMD Construction Services Division.

STORM WATER MANAGEMENT NOTES:

Existing Lot Coverage - 100% pervious Proposed Lot Coverage - 72% impervious / 28% landscaping

Net Increase in Storm Water Runoff due to Development

Methodology:

Albuquerque Development Process Manual Chapter 6, Section 2, Part A;

"A simplified procedure for projects with sub-basins smaller than 40 acres has been developed based on initial abstraction / uniform infiltration precipitation losses and Rational Method procedures."

The proposed infiltration basin has an emergency overflow that outlets to 4th St. NW at lower release rates than the existing conditions as shown in the table below. The Access road from the South partially drains into the Basin and the area south of the building does not. In calculating the Tributary area of the Basin, these two areas were considered offsetting.

Precipitation Zone:

Precipitation Zone 2: "Between the Rio Grande and San Mateo"

Drainage Summary:

Area = 1.06 acre (Tributary Area to Basin) Treatment C (Desert Landscaping Area) - 28% = 0.30 acres Treatment D (Impervious Area) - 72% = 0.76 acres 100-year peak Discharge Rate = 4.05 cfs/acre (Table 6.2.14)

 $Q_{100} = 4.05$ cfs (Proposed)

Q₁₀₀ = 2.71 cfs (Existing 100-year Discharge Rate)

Provided Detention Storage Volume:

Elevation	Contour Area	Incremental Vol.	∑Volume	
(ft)	(sq-ft)	(cu-ft)	(cu-ft)	
4,972	56	0	0	
4,973	517	286	286	
4,974	1,989	1,253	1,539	
4,975	4,447	3,218	4,757	
4,975.55	5 5,998	3,299	8,056	
*Average End Area Method used to calculate storage volumes.				

 V_{100} = 7,581 cu-ft (6-hour 100-year Storage Volume) *Table 6.2.13 & Equation 6.1

Provided Volume exceeds Required Volume (min.)

Site Overflow Check (Sidewalk Culvert)

In an emergency the infiltration basin would overflow through a 4' wide sidewalk culvert and discharge on 4th street. Proposed Q-100 = 4.05 cfs

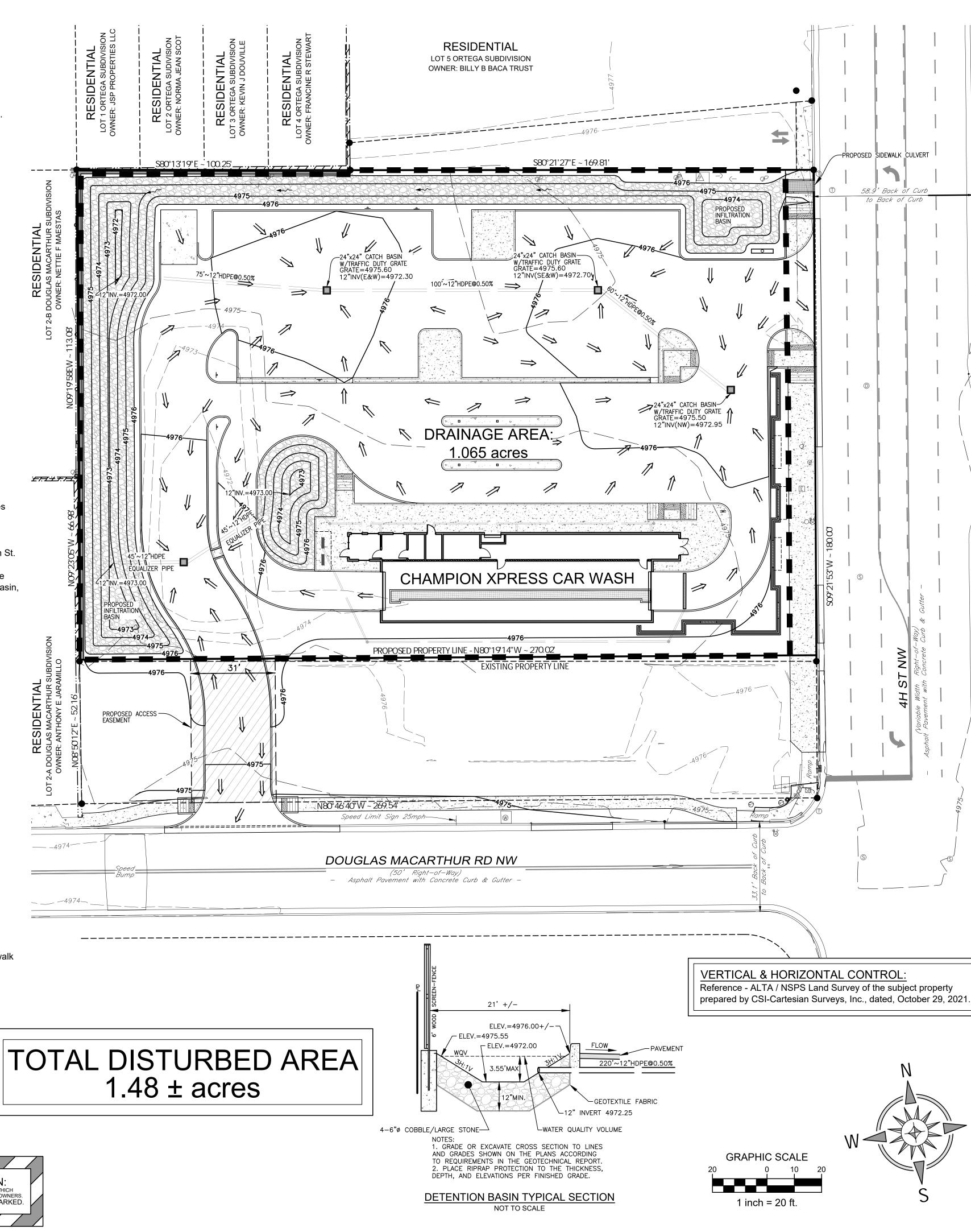
Solving for H @ (Q = 4.05) , H = 0.23' < 0.5' *Hight was solved using Q=CLH^{($\frac{2}{3}$), (C=2.7), (L=4')}

Storm Water Quality Volume (WQV) = Impervious Area x 0.42 inches WQV = 1,211 cu-ft (Required) WQV = 8,056 cu-ft (Provided)

No adverse effects to neighboring properties or public right-of-way is anticipated due to site development.







GENERAL GRADING, EARTHWORK & DRAINAGE NOTES

- 1. All spot elevations indicated in pavement areas are at bottom face of curb and/or finished pavement grade unless noted otherwise. All spot elevations indicated in grass or landscape areas are finished grade unless noted otherwise.
- 2. The Contractor shall be responsible for the removal and disposal of all vegetation and organic materials from the site that results from clearing & grubbing activities.
- 3. The Contractor shall be responsible for stripping and removal of all excess topsoil from the site. All topsoil that cannot be used on site shall be removed from the site at the Contractor's expense. The Contractor may dispose of excess topsoil by burying topsoil in landscape areas only at the direction of the Owner or the Owner's Representative.
- 4. The Contractor will be responsible for all safety requirements and for the protection of all existing and proposed utilities or structures during earthwork procedures.
- 5. The Contractor shall be responsible for the import of structural fill materials if suitable material is not available on site. The location and testing of suitable material shall be the Contractor's responsibility. The Contractor shall be responsible for the export and disposal of all excess or unsuitable materials.
- 6. The Contractor shall provide construction dewatering as necessary to complete construction as outlined in plans.
- 7. The Contractor shall exercise extreme care in establishing all grades and slopes in pavement areas, ramps and sidewalks in the vicinity of handicap parking and access areas and shall comply with Federal, State, and Local Codes.
- 8. In areas where sheet drainage flows from grass or landscape areas onto paved areas, the finished grade in grass or landscape areas shall be 1/2 inch above the top of curb or above the pavement in areas without curb. In areas where sheet drainage flows from pavement to grass or landscaped areas, the finished grade in grass or landscape areas shall be 1/2 inch below the pavement.
- 9. The Contractor shall provide positive drainage in all areas and away from all buildings.
- 10. All pavement shall be laid on a straight, even, and uniform grade with a minimum of 1:100 (1.0%) slope toward the collection points unless otherwise specified on plans. Cut or fill slopes in unpaved areas shall not exceed 3:1 (33.3%) maximum grade unless otherwise noted on plans.
- 11. ADA accessible areas shall not exceed the following slopes:
 - Ramps 1:12 (8.3%) max.
 - Routes 1:20 (5.0%) max.
 - Parking 1:50 (2.0%) max.
 - Cross Slopes 1:50 (2.0%) max.
- 12. The Contractor shall adjust tops/lids/grates of all cleanouts, manholes, inlets, valves, etc. to match final grade.
- 13. Following grading of subsoil to subgrade elevations, the Contractor shall provide 4" of topsoil (minimum) in all disturbed areas which are not to be paved. Final grades should be smoothly finished to surrounding areas and ensure positive drainage. Stockpiled topsoil shall be screened prior to respreading and should be free of subsoil, debris, and stones.
- 14. The Contractor shall be responsible for determining exact quantities of cut and/or fill for estimating and construction and should alert the Engineer of any excessive cut and/or fill, especially if additional cut and/or fill will be required due to poor existing soil conditions discovered during earthwork operations.
- 15. Refer to the Architectural and Structural Plans for information regarding any perimeter foundation drains.
- 16. The Contractor shall obtain a copy of the Geotechnical / Soils Report and become thoroughly familiar with site and subgrade information and fully implement recommendations given therein.

City of Albuquerque		
Planning Department		
Development Review Services		
HYDROLOGY SECTION		
APPROVED		
09/29/22		
DATE: OUTENEL		
BY: Konee Constants		
HydroTrans # F14D036A		
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE		
CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY		
ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING		
CORRECTION, OR ERROR OR DIMENSIONS IN PLANS,		
SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS		
SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.		

GRADING LEGEND

M/E	MATCH EXISTING PAVEMENT GRADE
E/P	EDGE-OF-PAVEMENT (NO CURB)
S/P	SIDEWALK PAVEMENT
T/C	TOP-OF-CURB
C/P	CONCRETE PAVEMENT
G/T	GUTTER FLOW LINE
F/F	FINISHED FLOOR GRADE
T/G	CONVEYOR TRENCH GRATE ELEVATION
F/L	FLOW LINE OF 3' CURB CUT
\Leftarrow	SHEET FLOW
~ ~	GUTTER FLOW
+00.00	PROP. SPOT ELEVATION
0000	PROP. CONTOUR
	LANDSCAPE AREA
	ROCK LINER / RIP-RAP

